

## The Vocabulary Gap: Building Knowledge Through Explicit Vocabulary Instruction



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## The Urgency of Vocabulary Instruction

Children with the lowest vocabularies know 2000 fewer words than their average peers by the end of second grade. In order for K-2 children with low vocabularies to catch up with their grade level peers, they must acquire vocabulary at an accelerated rate.

- Vocabulary as assessed in first grade predicts more than 30% of grade 11 reading comprehension, much more than reading mechanics as assessed in first grade (Cunningham & Stanovich, 1997).
- Large vocabulary differences are present by the end of grade 2. If teachers can find ways of supporting more rapid vocabulary growth in lower grades, more children will be able to comprehend complex texts in the upper grades (Biemiller, 1999, 2002, 2009).

- Vocabulary size in kindergarten is an effective predictor of reading comprehension in the middle elementary years (Scarborough, 1998, 2001).
- Children with restricted vocabulary by third grade have declining comprehension scores in the later elementary years (Chall et al., 1990).

## Intentional Teaching of Vocabulary

- In primary grades, intentional teaching of vocabulary through oral sources, ensuring coverage of about 4000 root words by the end of second grade
- In later elementary grades, continued emphasis on vocabulary development, adding 500-750 new words each year, additional idioms, and increased fluency with derived words

## Language Growth

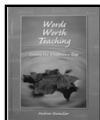
Language can only “grow” through interaction with people and texts that introduce vocabulary, concepts, and language structures in meaningful ways.

In grades 1 to 3, this growth cannot result from reading experiences only because most children are not reading content that is as advanced as their oral language.

## “Word Meaning” versus “Word”

Biemiller uses “word meaning” instead of “word” because many words have more than one meaning.

- I read the newspaper column near the column on the porch.
- You can lean against the wall while you eat the lean hamburger.
- We can can the tomatoes in August.



## Decoding is Not Enough

A student may be able to decode this word by segmenting it (in-form), but if she doesn't know that inform means to tell about, she may not understand the sentence below, even if she can pronounce the words.

David informed his teacher of the weather.



For adequate reading comprehension, children must acquire *both* fluent word recognition skills *and* an average or above-average vocabulary.

In Grades K-1, children's vocabulary development will occur mostly through oral sources (interactive read aloud, shared reading, retelling, drama, shared writing). Teachers must use these oral experiences to explicitly teach vocabulary.

## Staircase of Core Vocabulary

At the foundational level, texts contain a high percentage of familiar words with consistent and common phonological and orthographic patterns and root words.

As texts become more complex, vocabulary is used in figurative, idiomatic, and unusual ways, which require the reader to understand the multiple meanings of words in order to comprehend the deeper meaning within the text.

## What Makes a Text Hard?

- Familiar words used in unfamiliar contexts
- Words used as figurative language or idioms
- Words with multiple meanings
- Words used as different parts of speech
- Academic or specialized vocabulary

## Standards 4-6: Vocabulary Acquisition and Use

4. Determine or clarify the meaning of unknown and multiple-meaning words and phrases by using context clues, analyzing meaningful word parts, and consulting general and specialized reference materials, as appropriate.
5. Determine understanding of figurative language, word relationships, and nuances in word meanings.
6. Acquire and use accurately a range of general academic and domain-specific words and phrases sufficient for reading, writing, speaking, and listening at the college and career-readiness level; demonstrate independence in gathering vocabulary knowledge when encountering an unknown term important to comprehension or expression.

## CCSS on Vocabulary

- Research suggests that if students are going to grasp and retain words and comprehend complex text, they need incremental, repeated exposure in a variety of contexts to the words they are trying to learn.
- When students make multiple connections between a new word and their own experiences, they develop a nuanced and flexible understanding of the word they learning.

### Sample Items for Grade 6: Excerpt from “Julie of the Wolves” by Jean Craighead George

#### Sample Item 1 Questions

**Part A Question:** What does the word “regal” mean as it is used in the passage?

- a. generous
- b. threatening
- c. kingly\*
- d. Uninterested

**Part B Question:** Which of the phrases from the passage best help the reader understand the meaning of “regal?”

- a. “wagging their tails as they awoke”
- b. “the wolves, who were shy”
- c. “their sounds and movements expressed goodwill”
- d. “with his head high and his chest out”\*

## A Systematic and Sequential Process for Teaching Vocabulary

In order for students to read complex texts, teachers must provide explicit vocabulary instruction daily with opportunities to use the words in meaningful and diverse contexts. The first step in vocabulary instruction is to develop a systematic and research-based process for selecting words for instruction.

## First, Identify Words for Vocabulary Instruction

Three Questions to Guide Our Discussion:

- 1) What should we consider when selecting words?
- 2) What are the most common words acquired by mature speakers and readers at a particular grade?
- 3) How can teachers design a systematic vocabulary instructional approach based on research?

## Considerations When Selecting Words

- Representative – Is the word essential for understanding the text?
- Repeatable – Will the word be used again in this text or in this course?
- Transportable – Can the word be used in other content areas?
- Contextual Analysis – Can the student arrive at the meaning through context?
- Structural Analysis- Can the student arrive at the meaning through structure?
- Cognitive Load – How many words are reasonable to teach?

From Fisher, Frey, & Lapp. 2009. In a Reading State of Mind: Brain Research, Teacher Modeling, and Comprehension Instruction. IRA.

## And More Considerations . . .

- Which words should we teach for a particular lesson?
- Are there words we could skip for direct instruction?
- What do the students already about related concepts?
- How deeply do students need to examine each word?
- What do we want students to know about each word?
- How much time should we spend on each word?
- What are the best strategies to teach each word (e.g., semantic mapping, feature analysis, concept mapping)?

## And a Few Final Thoughts

- Is understanding the word important to understanding the selection?
- Does this word represent a specific concept students definitely need to know?
- Are students able to use context or structural-analysis skills to discover the word's meaning?
- Can working with this word be useful in furthering students' context, structural analysis, or dictionary skills?
- How useful is this word outside of the reading selection currently being taught?

## Research-Based Lists

Fry's 1,000 Instant Words (Fry & Kress, 2007). The 1,000 most frequent words

Dale's list of 3,000 Words (Chall & Dale, 1995). 3,000 words that most 4th graders know

Beck, McKeown, and Kucan (2002): Words for Tier 1, Tier 2, and Tier 3 instruction. Tier 2 words are used for vocabulary instruction.

Biemiller's Words Worth Teaching in Kindergarten-Grade Two and in Grades Three-Six (Biemiller, 2009). One list of about 2,000 words and one of about 4,000 words.

Coxhead's Academic Word (Coxhead, 2000): 570 word families that occur reasonably frequently over a range of academic texts.

Hiebert's Word Zones: 5,586/3,913 Words grouped into four word zones: 300, 500, 1000, and 2000 words. The 4,000 most frequent word families <http://www.textproject.org/library/resources>

## Biemiller's Words Worth Teaching

### Closing the Vocabulary Gap Before the End of Second Grade

Biemiller research found that vocabulary knowledge could be classified into three categories. He identified 1600 high priority root word meanings that should be taught between Kindergarten and second grade.

## Classification of Words

- Easy – Meanings known by 80% or more of children; does not require instruction
- High Priority – Meanings known by 40-79% of children; best words for instruction
- Difficult- Meanings known by fewer than 40% of children; appropriate for instruction in later years

Biemiller, A. (2009) Words Worth Teaching. Columbus, OH: SRA/McGraw Hill.

## Three-Tiered System for Learning Words

### Tier 1 Words

- Basic words that don't require instruction (e.g., friend, run)

### Tier 2 Words

- High-frequency, high-utility words for mature language users (e.g., redundant, justify)

### Tier 3 Words

- Low-frequency words usually found in content areas (e.g., ecosystem, separation of powers)

Beck, I.L., McKeown, M. G., & Kucan, L. (2002). *Bringing words to life: Robust vocabulary instruction*. New York: Guilford.

## Vaca & Vaca Word Classifications

### General Words

- Common to everyday language and have meanings that are widely known (similar to Tier 1 words)

### Specialized Words

- Words used more frequently in print than in speech and often possess multiple meanings that are changed by the context (similar to Tier 2 words)

### Technical Words

- Words that are specific to an academic content and have a precise meaning (similar to Tier 3 words)

Vacca, R. T., & Vacca, J. L. (1999). *Content area reading: Literacy and learning across the curriculum* (6th ed.) New York: Longman.

## Research By Flanigan & Greenwood

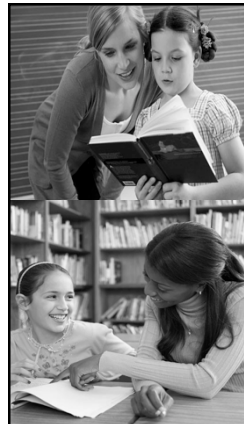
Effective Content Vocabulary Instruction in the Middle;  
Matching Students, Purpose, Words, and Strategies.  
*Journal of Adolescent and Adult Literacy*, 51(3). Nov 2007.

Matching Students, Purpose, Words, and Strategies

## Factors in Instructional Decisions

- Knowledge of the students we teach
- Nature of the words we decide to teach
- Purpose for teaching each of the words
- Strategies used to teach the words

Flanigan & Greenwood. (2007). Effective Content Vocabulary Instruction in the Middle: Matching Students, Purpose, Words, and Strategies. *Journal of Adolescent and Adult Literacy*, 51(3).



So, what does this mean  
for instruction?

- 1) Provide Explicit Vocabulary Lessons
- 2) Include Vocabulary Instruction in Writing About Reading
- 3) Include Vocabulary in Book Orientations
- 4) Use Theme Sets for Multiple Exposure to Vocabulary

## How Can Teachers Design a Systematic Vocabulary Instructional Program?

Where would instruction occur within the literacy framework?  
What words should be taught?  
What strategies should be taught?  
How would vocabulary knowledge be assessed?

## CCSS on Vocabulary

- Research suggests that if students are going to grasp and retain words and comprehend complex text, they need incremental, repeated exposure in a variety of contexts to the words they are trying to learn.
- When students make multiple connections between a new word and their own experiences, they develop a nuanced and flexible understanding of the word they learning.

## Vocabulary Mini-Lessons

- Incorporate vocabulary instruction into the word study component.
- Explain the word meaning and create multiple opportunities for students to use the word in conversation.
- Focus on High Priority (or Tier 2) grade-level words for which students have some familiarity.
- Teach vocabulary strategies.
- Create vocabulary anchor charts and review during lessons.
- Keep a record of student vocabulary words.

## Teach Vocabulary Within Guided Reading

- Before, during, and after reading:
  - Before: Predict vocabulary meanings during book orientation and record predictions on vocabulary anchor chart; include new words in book orientation
  - During: Pay attention to vocabulary words within text, identify words for follow-up discussion
  - After: Discuss vocabulary meanings and revise anchor chart for precision; record vocabulary in Reading Log, such as definition, examples, and symbols (Vocabulary Section)

## Teach Vocabulary During Text Discussion

- Use specific vocabulary in complete sentences
- Use sentence stems that describe the meaning of the word
- Ask questions that include the vocabulary in the question
- Retell the story in correct sequence
- Use language signals to explain, sequence, describe, compare, contrast, and summarize information

## In Summary. . .

- Expand vocabulary knowledge – beginning with common, everyday ‘grade-level- words and build connections from those words.
- Create a network of word knowledge – multiple meanings, multiple parts of speech, synonyms, words parts, idioms, phrases.

## Learning the New Word, Phrase, or Sentence

✓ to the ear (listening)



✓ to the mouth (speaking)



✓ to the eye (reading)



✓ to the hand (writing)



Vocabulary development occurs through the integration of listening, speaking, reading, and writing in meaningful contexts.

## Embedding Vocabulary Into Writing Instruction



See [www.ualr.edu/literacy](http://www.ualr.edu/literacy)

Teacher Resources Link  
Vocabulary Lessons K-8  
Literary and Expository Texts

## What are Language Frames?

- Partially constructed cloze statements that highlight academic language and syntax required to communicate in a particular form.
- Serve as a temporary scaffold for understanding the conventions of particular discourse forms.
- Enable students to associate particular words and phrases with academic discourse, thus increase their reading, writing, and listening comprehension.

## Language Frame in Reading Log

4-17-12  
Dance At Grandpa's by Laura Ingalls Wilder:  
This text reminds me of.....  
This text reminds me of Christmas. It reminds me of Christmas because the horses had snowballs on their hips. The people had a Christmas sled. It was snowing where they live. It can snow for 1 or 2 miles. My favorite part was when they danced at grandpa's and danced until it was the kids bed time. It is a cool book.

Text reads:  
This text reminds me of Christmas. It reminds me of Christmas because the horses had snowballs on their hips. The people had a Christmas sled. It was snowing where they live. It can snow for 1 or 2 miles. My favorite part was when they danced at grandpas and danced until it was the kids bed time. It is a cool book.

## Sample Language Frames

- My opinion is \_\_\_\_\_ because \_\_\_\_\_
- I take the position that \_\_\_\_\_
- My first reason is \_\_\_\_\_
- I agree with \_\_\_\_\_ because \_\_\_\_\_
- The most important point is \_\_\_\_\_
- \_\_\_\_\_ is important because \_\_\_\_\_
- At first I thought \_\_\_\_\_, but now I \_\_\_\_\_
- On the other hand, \_\_\_\_\_
- Something that is still not clear is \_\_\_\_\_

## Descriptive Frame

A \_\_\_\_\_ is a type of \_\_\_\_\_. It is made up of \_\_\_\_\_ and looks like \_\_\_\_\_. Some \_\_\_\_\_ have \_\_\_\_\_ such as \_\_\_\_\_. For example, \_\_\_\_\_ has several characteristics. One characteristic is \_\_\_\_\_. Another characteristic is \_\_\_\_\_, which is important because \_\_\_\_\_.

## Sequence Frame

Here is how a \_\_\_\_\_ is made. First, \_\_\_\_\_. Next, \_\_\_\_\_. Then, \_\_\_\_\_. Finally, \_\_\_\_\_.

On (date) \_\_\_\_\_ happened. Prior to that \_\_\_\_\_ was \_\_\_\_\_. Then, \_\_\_\_\_. After that \_\_\_\_\_. In the end, \_\_\_\_\_.

### Examples of Language Starters

- We are reading this piece because \_\_\_\_\_
- When I think about this piece, I am reminded of \_\_\_\_\_
- I need to know more about \_\_\_\_\_ because \_\_\_\_\_
- I noticed this piece is organized like \_\_\_\_\_
- The author's words show me that \_\_\_\_\_

### A Few Examples of Academic Prompts and Questions

- Questioning
  - What do you think the story means?
  - Where can we find the answer to this?
  - This seems a little confusing. What facts from the text can we use to clarify what the author means?
- Summarizing
  - What is your opinion of this passage?
  - How would you summarize this story?
  - Let's combine the main points into the big idea.

### General Advice for Planning Instruction

- Teach 6-8 new words a day from research-based lists (mostly Tier 2 words)
- Use sentence stems and language phrases to scaffold oral conversation.
- Explain the word meaning and create opportunities for students to use the word in conversation.
- Create and refer to vocabulary anchor charts.
- Teach strategies for solving words.
- Have children collect words for Vocabulary Section of Reading Log.
- Keep a record of student vocabulary words.
- Embed vocabulary instruction in Writing About Reading.
- Use theme sets for multiple exposure to words.

### Procedures for Teaching New Word

- Label and Define: Assign a label and short meaning to an unfamiliar term.
- Contextualize: Read the new word in text.
- Provide Example: Connect to something familiar.
- Elaborate on Attributes: Discuss how the word is similar or different to something else.
- Provide Strategy: Articulate strategy for figuring out the meaning of the word.

### Include Language Tools

- Anchor Charts
- Vocabulary Strategy Organizers
- Language Frames (sentence, paragraph, literary frames)
- Vocabulary Logs
- Vocabulary Charts

### Working With Words in Small Groups

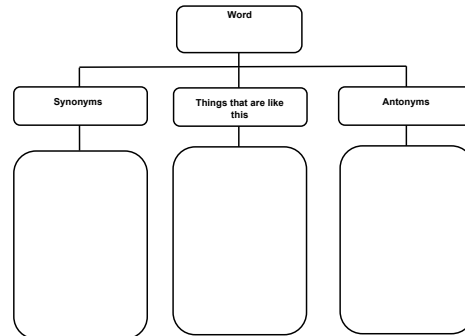
- Concept Sorts – Sort words written on cards according to attributes or characteristics.
- Semantic Feature Analysis – Classify words according to relationships between concepts and determine whether particular attributes are a feature of the word.
- Text Impressions – Use a list of vocabulary from the text to write a paragraph that links all the words together.
- Analogies – Forming relationships between words and the commonality of the relationship.



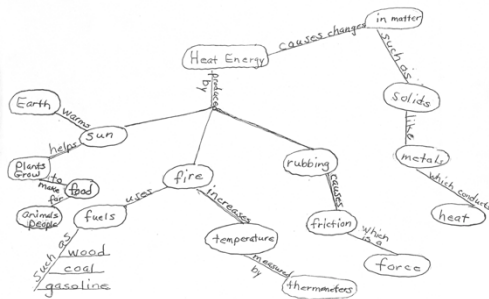
See [www.ualr.edu/literacy](http://www.ualr.edu/literacy)

## Concept and Vocabulary Development Literacy Task Cards

### Concept Map



### Example of 2<sup>nd</sup> grade Concept Map



### Sample Template

- Introduce new word from book and use it in context.
- Have students repeat the word.
- Provide child-friendly definition.
- Show memorable visual to illustrate the word's meaning.
- Provide child-friendly examples of using the word.
- Ask students to provide examples.
- Give non-examples and ask students to confirm or disconfirm.

### Example of Explicit Vocabulary Instruction

- **Word:** several (adjective)
- **Contextualize the Word:** Several of the students went home sick.
- **Definition:** The word several means a number that is more than three.
- **Use in Other Contexts:** I collected several rocks during recess. Several of my friends were at the swimming pool.
- **Word Game:** Which number means several? Two or four?
- **Reinforcement:** What is the word that means a number more than three?
- **Word Work:** In the Vocabulary section of your Reading Response Log, write the word several. Draw a picture showing several rocks collected at recess OR several friends swimming at the pool. Write about your picture using the word several.



### Stellaluna

#### Summary

Knocked from her mother's safe embrace by an attacking owl, Stellaluna lands headfirst in a bird's nest. This adorable baby fruit bat's world is literally turned upside down when she is adopted by the occupants of the nest and adapts to their peculiar bird habits. Two pages of notes at the end of the story provide factual information about bats. "Delightful and informative but never didactic; a splendid debut." -- Kirkus Reviews

Author: Cannon, Janell

Language: English | Copyright: 1993 | Book Type: Fiction | Age Range: 3 and up

#### Vocabulary Words

The Lexile "PowerV" Word Selector identifies up to 10 challenging words in each book that are important for students to know. Read more about the PowerV Word Selector.

upside thumbs swooped behaved brace  
twig howled clutched limb embarrassing

	Chester's Way	Jessica
Characters	Chester, Wilson, Lilly	Ruthie, Jessica
Who is telling the story?	narrator	narrator
Events	<ul style="list-style-type: none"> <li>Chester and Wilson played together and did everything the same way.</li> <li>Lilly moved into their neighborhood and liked to do things differently.</li> <li>Chester, Wilson and Lilly became friends.</li> </ul>	<ul style="list-style-type: none"> <li>Ruthie had an invisible friend that she did everything with.</li> <li>Ruthie went to kindergarten.</li> <li>She made friends with a real girl named Jessica.</li> </ul>
Message	We can be friends with someone who does things differently from the way we do them.	We can make real friends who are fun.

	mind
From the text: Chester's Way	She definitely has a <u>mind</u> of her own. (noun)
What it means:	She thinks for herself.
Other meanings:	<ul style="list-style-type: none"> <li>My mom told me to <u>mind</u> my manners. (verb) <ul style="list-style-type: none"> <li>To be on your best behavior</li> </ul> </li> <li>I use my <u>mind</u> to think. (noun) <ul style="list-style-type: none"> <li>Using your brain</li> </ul> </li> <li>I don't <u>mind</u> if you play outside. (verb) <ul style="list-style-type: none"> <li>Don't care</li> </ul> </li> <li>Grandma had to <u>mind</u> the baby. (verb) <ul style="list-style-type: none"> <li>To look after or take care of</li> </ul> </li> <li>I'm going to lose my <u>mind</u>! (noun) <ul style="list-style-type: none"> <li>Going crazy - can't think</li> </ul> </li> </ul>
Part of speech:	noun or verb

### Teach Vocabulary During Text Discussion

- Use specific vocabulary in complete sentences
- Use sentence stems that describe the meaning of the word
- Ask questions that include the vocabulary in the question
- Retell the story in correct sequence
- Use language signals to explain, sequence, describe, compare, contrast, and summarize information

### Guided Reading

- Students read several books at their instructional level in the themed set.
- Students engage in book talk about these books with teacher scaffolding.
- Students write in their log using vocabulary from the text.
- Teacher scaffolds students to extend their vocabulary using sentence frames and language starters.

### Guidelines for Teaching Vocabulary

1. Identify vocabulary words from research-based lists of typical words known by mature language users at that grade level.
2. Pick a minimum of two words a day for systematic vocabulary instruction. Create a word network of multiple meanings, phrases, idioms, etc. associated with this common word and use these words in everyday conversations.

### Guidelines for Teaching Vocabulary (cont)

3. Create anchor charts or vocabulary walls and add new words and phrases to a 'word network' as they occur in texts.
4. Ask students to collect words in the vocabulary section of reading log.
5. Teach vocabulary strategies
  - Concept Sorts, Semantic Feature Analysis, Text Impressions, Analogies, draw word meanings, create word lines, write student definitions (what it is and what it is not)